REMARKS

Applicants express appreciation to the Examiner for the Interview of February 12, 2001 conducted with Applicants' attorneys. The Office Action of January 3, 2001, rejected claims 2-42. By this paper, claims 2-6, 16, 18, 20, 27, 28 and 30-42 have been canceled and new claims 43-46 have been added. Accordingly, claims 7-15, 17, 19, 21-26, 29 and 43-46 are pending. Applicants respectfully request favorable reconsideration of the pending claims in view of the amendments made herein and the matters discussed in the interview.

The Office Action indicated that the title of the invention is not descriptive. By this paper, the title has been amended in accordance with the suggestion by the Examiner in the Office Action. The Office Action noted that the application did not contain an abstract of the disclosure as required by 37 C.F.R. § 1.72(b). Applicants have provided an abstract of the disclosure herein. The Office Action objected to claim 38 for certain informalities. In view of the cancellation of claim 38 by this paper, this objection is moot.

The Office Action rejected claims 3, 5, 6, 7, 11-13, 15, 16, 19, 20, 30-34, 39 and 41 under 35 U.S.C. § 112 second paragraph, as being indefinite. Of these rejected claims, claims 7, 11-13, 15 and 19 remain pending. The Office Action stated that the phrase, "a standard behavior" included in claims 7, 11, 13, 15 and 19 was vague and indefinite. The amended version of the claims includes the term "standard" only in claims 14 and 19. In each of these claims, the term "standard" is accompanied by further descriptive terminology that overcomes the indefiniteness rejection of the Office Action. The Office Action rejected claim 12, stating that the phrase "based on the performance of the custom behavior" is vague and indefinite. By this paper, this phrase has been removed from claim 12 and the language of claim 12 has been clarified, such that the rejection of claim 12 has been overcome.

The Office Action rejected claim 2 under 35 U.S.C. § 101, stating that the invention of claim 2 is directed to non-statutory subject matter. By this paper, claim 2 and the dependent claims that depend therefrom, namely, claims 3-6, have been canceled.

The Office Action rejected claims 3-42 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,119,476 to Texier in view of U.S. Patent Number 5,404,294 to Karnik. In the Interview of February 12, 2001, Applicants attorney discussed the independent claims 2, 7, 12, 19, 29, 33 and 38 and, in particular, the proposed amendment to claim 7. At the Interview, Applicants further discussed distinctions between amended claim 7 and the subject matter disclosed by Texier and Karnik, as further presented below.

Claim 7 as amended recites:

> providing a plurality of defined field types that can be associated with custom fields that can be included in the custom form;
> providing a plurality of defined behaviors that can be associated with the custom fields that can be included in the custom form;
> receiving user input selecting:
> > a selected field type from among the plurality of defined field types; and
> > a selected behavior from among the plurality of defined behaviors;
> creating a custom field in the custom form, the custom field having the selected field type and the selected behavior

Thus, a user can select a field type and a behavior to be applied to a custom field in a custom form. In contrast, Texier discloses methods for generating dialog window, or forms, on the screen of the computer system. (Col. 1, lines 61-63). As recognized in the Office Action at

page 9, first paragraph, Texier fails to teach "a custom behavior for a field indicating user defined operations."

The Office Action then cites Karnik, stating that Karnik teaches "a form system whereby tags can be linked to other tags arithmetically using different mathematical functions." While Applicants recognize that both Texier and Karnik disclose systems for processing data using forms on a computer, neither Texier nor Karnik teach or suggest providing customized forms having the functionally now recited in claim 7.

In view of the limitations of claim 7 set forth above, the invention of claim 7 as amended permits a user to select a field type and to independently select a behavior to be applied to a custom field. Thus, the user can select a field type and can also reflect the behavior that will be associated with the field type. In this manner, an administrator of a computer system that has an electronic mail system effectively has a toolbox, whereby the administrator can pick and choose from different field types and different behaviors to create a customized form according to the needs the users of the computer system.

The specification of the present application provides examples of the plurality of defined field types and the plurality of defined behaviors from which an administrator or other user can select, thereby illustrating the degree of flexibility in creating customized forms provided by the invention. For instance, in the specification at page 7, line 36 - page 8, line 26 presents various examples of defined field types from which the administrator or other user can select, including: a) fields in which the text cannot be edited; b) fields in which the text can be edited; c) fields in which the text can be edited but not echoed to the display; d) standard buttons; e) standard radio buttons; f) standard check boxes; g) buttons in the shape of specified icons; h) buttons with a specified title string; i) fields displaying the time of day; k) fields displaying the date; l) fields

with a rectangle drawn therearound; m) fields displaying a specified picture; n) fields containing data that is not displayed on the screen; and o) user-defined fields. While none of these field types is specifically recited in claim 7, this wide range of field types illustrates examples of the highly customizable forms that can be created according to the invention of claim 7 and the manner in which the acts recited in claim 7 differ from the methods disclosed in Texier and Karnik. In view of the wide range of defined field types disclosed in the specification, it is clear that the specific examples presented in the specification are merely illustrative, and not limiting.

Similarly, the specification at page 8, line 27 - page 9, line 30, presents specific examples of defined behaviors from which the administrator or other user can select a behavior to be applied to a custom field, including behaviors indicating that a) the field can be the current field; b) the field receives characters entered by the user; c) a form control procedure is to be called whenever the field is affected by a user event; d) the field contents are to be packed into a mail message; e) the field is read-only; f) the field is drawn differently to indicate that it is disabled, etc. While none of these behaviors is specifically recited in the claim 7, this wide range of behaviors illustrates examples of the highly customizable forms that can be created according to the invention of claim 7 and the manner in which the acts recited in claim 7 differ from the methods disclosed in Texier and Karnik. In view of the wide range of behaviors disclosed in the specification, it is clear that these examples are merely illustrative and not limiting.

In contrast to the method recited in claim 7 as amended, Texier and Karnik disclose methods for generating custom forms that are limited to the use of predefined components that do not allow the user two degrees of freedom to select both the field type and the behaviors that are to be applied to a custom field.

The background section of Applicants' specification recognizes that systems for generating custom forms such as those disclosed in Texier and Karnik existed. Specifically, the specification of the present application at page 2, lines 3-6 states:

a few mail systems have allowed the user to add custom forms. These mail systems provide only limited customization. The customization is typically limited to the use of predefined components. . . . The mail system predefines how the fields will operate.

The foregoing passage of the specification summarizes the nature of the methods disclosed in Texier and Karnik. For the reasons presented above, Texier and Karnik fail to teach or suggest all limitations above and fail to provide the degree of selection of field types and behaviors that is recited in claim 7. Thus, claim 7 as amended distinguishes from the cited references. Claims 12, 19 and 29 as amended also recite limitations relating to selected field types and selected behaviors applied to a field of a custom field. Thus, for the reasons presented above in reference to claim 7, claims 12, 19 and 29 also distinguish from the cited references.

The remaining claims, namely, claims 8-11, 13-15, 17, 21-26 and 43-46 are dependent claims that depend from the independent claims discussed above. For at least this reason, these dependent claims also distinguish from the cited references.

Applicants also point out that several of the claims have been amended to promote clarity, to provide terminology that is consistent with that of the base claims, and for other reasons that are not related to either responding to a rejection of the claims or distinguishing from cited art.

17

Attached hereto is a marked-up version of the changes made to the previous version of the specification and claims by this amendment. The attached pages are captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

For the foregoing reasons, Applicants submit that the pending claims are in condition for allowance and courteously request favorable action. If there are any outstanding issues that could be resolved by telephone, the Examiner is invited to contact the undersigned attorney.

Dated this 1ˢᵗ day of May, 2001.

Respectfully submitted,

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IN THE TITLE

The original title has been replaced with the new title: --Customizing Forms In An Electronic Mail System Utilizing Custom Field Behaviors And User Defined Operations--.

IN THE ABSTRACT

An abstract has been added as follows:

--ABSTRACT OF THE DISCLOSURE--

--User-customizable forms in an electronic mail system enable an administrator to select customized field types and customized behaviors. The electronic mail system provides for the receiving and displaying of mail information in conjunction with the use of a user-customizable form. An administrator creates a customized field of a customized form by selecting a field type from a among multiple defined field types and a behavior from among multiple behaviors. When data is entered by a user to the customized field having the selected field type, the selected behavior is applied to the data. In this manner, the administrator has the flexibility of creating a variety of customized forms in the electronic mail system, and is not limited to a relatively small number of predefined forms.--

IN THE SPECIFICATION

At page 8, line 23, --the-- has been inserted prior to "field contains".

At page 10, line 17, --is-- has been inserted prior to "written".

At page 10, line 28, "resourced" has been replaced with --resources--.

At page 20, line 21, --a-- has been inserted prior to "tick-tack-toe".

At page 20, line 23, "win" has been replaced with --wins--.

At page 21, line 6, --a-- has been inserted prior to "customizable".

IN THE CLAIMS

Claims 2-6, 16, 18, 20, 27, 28 and 30-42 have been canceled.

Claims 7-15, 17, 19, 21-26 and 29 have been amended as follows:

7.   (Amended)   A method in a computer system for processing [inputting] data using a custom form having a field that has been customized by a user of the computer system, [the computer system having a plurality of field types, each field type having a standard behavior,] the method comprising:

　　providing a plurality of defined field types that can be associated with custom fields that can be included in the custom form;

　　providing a plurality of defined behaviors that can be associated with the custom fields that can be included in the custom form;

　　receiving user input selecting:

　　　　a selected field type from among the plurality of defined field types; and

　　　　a selected behavior from among the plurality of defined behaviors;

　　creating a custom field in the custom form, the custom field having the selected field type and the selected behavior;

　　[providing a description of each field to be displayed on the custom form, the description indicating characteristics of the field for use in displaying the field and in utilizing the field to obtain data;]

　　[providing a form control procedure for the custom form, the form control procedure for receiving data directed to a field of the form and an indication of the field to which the data is directed;]

　　displaying the custom form, including the custom field, on a display device [in accordance with the provided description of each field];

　　receiving data directed to the custom [a] field of the displayed custom form; and

　　[invoking the provided form control procedure and passing to the form control procedure the received data and an indication of the field to which the data is directed; and]

　　in response to receiving the data directed to the custom field, a [under control of the invoked] form control procedure of the computer system [,] performing the selected [a custom] behavior for the custom field [to which the data is directed].

8.   (Amended)   The method of claim 7 wherein the selected [custom] behavior modifies the display of a field other than the custom field [to which the data is directed].

9.　(Amended)　The method of claim 7 including:

re-invoking the [provided] form control procedure and passing to the [provided] form control procedure an indication of the custom field to which the data is directed; and

under control of the [re-invoked] form control procedure, performing another [further custom] behavior for the custom field [to which the data is directed].

10.　(Amended)　The method of claim 7 wherein [the] displaying [of] the custom form further includes, for each field of the form: [,]

invoking the form control procedure and passing to the form control procedure an indication of the field which identifies the field; and

under control of the form control procedure, displaying the indicated field.

11.　(Amended)　The method of claim 7 including, [:] under control of the [invoked] form control procedure, returning an indication whether to perform the selected [standard] behavior for the custom field, wherein [to which the data is directed; and when the returned indication indicates to perform the standard behavior for the field,] performing the selected [standard] behavior for the custom field is conducted when the returned indication specifies that the selected behavior is to be performed [to which the data is directed].

12. (Amended) A method in a computer system for <u>processing data using a</u> [performing] custom <u>form having a field that has been customized by a user of the computer system</u> [processing for a field of a form], the method comprising:

    <u>displaying the custom form, the custom form having one or more custom fields, wherein each custom field has:</u>

        <u>a selected custom field type that has been selected by a user from among a plurality of defined custom field types that are supported by the computer system; and</u>

        <u>a selected custom behavior that has been selected by the user from among a plurality of defined custom behaviors that are supported by the computer system;</u>

    <u>receiving data directed to a particular field of the custom form;</u>

    <u>in response to receiving the data, performing the acts of:</u>

        [receiving an indication of the field;]

        determining <u>that</u> [whether] <u>the particular field is a custom field that has a selected</u> [a] custom behavior [has been defined for the field]; and

        [when a custom behavior has been defined,]

        <u>in response to the act of determining,</u> performing the <u>selected</u> custom behavior for the <u>particular</u> field; and

        <u>determining</u> [returning an indication that the custom behavior has been performed for the field so that a determination] whether to perform <u>another</u> [a standard] behavior <u>for the particular field in response to the selected custom behavior having been performed</u> [can be made based on the performance of the custom behavior].

13. (Amended) The method of claim 12 wherein the <u>act of determining whether to perform another behavior is conducted by a form control procedure operating at the computer system</u> [returning of the indication further includes returning an indication whether to perform a standard behavior].

14.   (Amended)   The method of claim 12 wherein the <u>custom</u> form <u>also includes</u> <u>one or more default fields, each having a standard field type and a standard behavior that are not</u> <u>selected by the user</u> [has a plurality of fields and the receiving includes receiving an indication of one of the plurality of fields].

15.   (Amended)   The method of claim 12<u>, further comprising, prior to the act of</u> <u>performing the selected custom behavior, the act of determining whether the selected</u> [wherein the receiving includes receiving an indication that the custom behavior is that] custom behavior <u>is</u> to be performed prior to performing <u>said other</u> [any standard] behavior.

17.   (Amended)   The method of claim 12 wherein the <u>act of receiving data</u> <u>comprises the act of receiving data entered by a person viewing the custom form</u> [receiving includes receiving an indication of data input to the field].

19.   (Amended)   A method in a computer system for <u>processing data using a</u> [displaying a form with a plurality of fields] <u>form having a custom field that has been customized</u> <u>by a user of the computer system and for applying a custom behavior and a standard behavior to</u> <u>the custom field</u>, the method comprising:

<u>displaying the custom form, the custom form having a custom field, wherein the</u> <u>custom field has</u>:

<u>a selected custom field type that has been selected by a user from among a</u> <u>plurality of defined custom field types that are supported by the computer system</u>;

<u>a selected custom behavior that has been selected by the user from among</u> <u>a plurality of defined custom behaviors that are supported by the computer</u> <u>system; and</u>

<u>a standard behavior, wherein the standard behavior is a behavior that is</u> <u>supported by the computer system and applied to the data field without the user</u> <u>being required to select the standard behavior</u>;

<u>receiving data directed to the custom field</u>;

[for each of the fields,]

invoking a form control procedure <u>operating at the computer system</u>;

passing <u>information identifying the custom field to</u> [an indication of the field,] the form control procedure [for optionally performing a custom behavior for the field prior to performing any standard behavior for the field];

receiving an indication from the form control procedure [whether] to perform <u>the</u> [a] standard behavior for the field;

[when the received indication indicates to perform a standard behavior,] performing the standard behavior for the <u>custom</u> field; [and]

re-invoking the form control procedure<u>; and</u>

<u>using the form control procedure, performing the selected custom behavior for the</u> <u>custom field</u> [passing an indication of the field, the form control procedure for optionally performing a custom behavior for the field after performing any standard behavior for the field].

21.   (Amended)   The method of claim 19, further comprising [including] accessing a form data structure that includes a definition of each field of the custom form [along with the form control procedure].

22.   (Amended)   The method of claim 21, further comprising [including] transmitting [transporting] the form data structure using an electronic mail system, such [so] that the custom form can be displayed on another computer system.

23.   (Amended)   The method of claim 19, further comprising, [including] when invoking the form control procedure, indicating to the form control procedure an event that is associated with receiving the data directed to the custom field [which triggered the processing].

24.   (Amended)   The method of claim 23 wherein the event is the display of the custom form.

25.   (Amended)   The method of claim 23 wherein the event is input of data into the custom field.

26.   (Amended)   The method of claim 23 wherein the event is input of data into another field of the custom form.

29.   (Amended)   A computer-readable medium containing instructions for causing a computer system to perform a method for processing data using a custom form having a field that has been customized by a user of the computer system, the computer-readable medium comprising [custom processing field of a form, by]:

computer-executable instructions carried by the computer-readable medium, the computer-executable instructions, when executed by the computer system, causing the computer system to perform the method, including the acts of:

providing a plurality of defined field types that can be associated with custom fields that can be included in the custom form;

providing a plurality of defined behaviors that can be associated with the custom fields that can be included in the custom form;

receiving user input selecting:

a selected field type from among the plurality of defined field types; and

a selected behavior from among the plurality of defined behaviors;

creating a custom field in the custom form, the custom field having the selected field type and the selected behavior;

displaying the custom form, including the custom field, on a display device;

receiving data directed to the custom field of the displayed custom form; and

in response to receiving the data directed to the custom field, a form control procedure of the computer system performing the selected behavior for the custom field

[for each field of the form, receiving an identification of the field;]

[determining whether a custom behavior has been defined for the identified field; and]

[when a custom behavior has been defined,]

[performing the custom behavior for the identified field; and]

26

[returning an indication that the custom behavior has been performed for the identified field so that custom processing can be defined and performed for each field of the form].

New claims 43-46 have been added as follows:

43.   (New) The computer-readable medium of claim 29, wherein the selected behavior modifies the display of a field other than the custom field.

44.   (New) The computer-readable medium of claim 29, wherein the method further includes the acts of:

re-invoking the form control procedure and passing to the form control procedure an indication of the custom field to which the data is directed; and

under control of the form control procedure, performing another behavior for the custom field.

45.   (New) The computer-readable medium of claim 29, wherein displaying the custom form further includes, for each field of the form:

invoking the form control procedure and passing to the form control procedure an indication of the field which identifies the field; and

under control of the form control procedure, displaying the indicated field.

46.   (New) The computer-readable medium of claim 29, including, under control of the form control procedure, returning an indication whether to perform the selected behavior for the custom field, wherein performing the selected behavior for the custom field is conducted when the returned indication specifies that the selected behavior is to be performed.